

Natural Theology and the Epistemology of Religious Belief
(Later changed to *The Reformed Objection to Natural Theology*, with the present chapter excluded).
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NATURAL THEOLOGY AND THE RATIONALITY OF THEISTIC BELIEF

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The tradition of natural theology has typically maintained not only that there are good arguments for God's existence but that we can have *rational* beliefs about God on the basis of such arguments. It has also maintained that God can be *known* on the basis of natural theology. More generally, theistic belief(s) can have *positive epistemic status* by virtue of the evidential considerations adduced in natural theology. There is an important relationship, then, between natural theology and the branch of philosophy known as the theory of knowledge or epistemology, which is concerned with the nature, origin, and extent of knowledge, as well as related concepts such as truth, rationality, justification, and belief formation. In this way natural theology bears an important relationship to *religious* epistemology, which is concerned with the application of epistemological concepts to religious beliefs. One of the central questions of religious epistemology is "how can we know God?" Natural theology provides one answer to this. We know truths about God on the basis the sort of arguments discussed in chapters 1 and 2. But then it is crucial to address the more fundamental questions about the nature of knowledge and closely allied concepts such as rationality and justification.

In this chapter and the next I will examine several crucial questions in general epistemology, as well as their application to natural theology. In this chapter I shall be concerned with the epistemic desideratum of rationality or justification. In the next chapter the focus will be inferential knowledge of God. My main interest in this chapter is to consider what sort of requirements must be satisfied if a person has a rational or justified belief in God on the basis of considerations drawn from natural theology. This forms a natural extension of the previous two chapters. For instance, one fairly long-standing and widespread account of rational belief, at least for rational inferential beliefs, is in terms of the possession of good evidence or reasons for one's belief. But this raises questions, not only about the epistemic status of one's reasons, but the extent to which such reasons provide good *support* for one's belief. But the latter certainly includes the matter of the logical relation between one's belief and the reasons for it. The present chapter will develop such considerations as part of a broader epistemological context. The main focus will be the positive epistemic status designated by the terms rationality, justification, or rational justification.

I. Deontological and Evidential Rationality

Human persons hold beliefs of many different sorts. For instance, there are sensory perceptual beliefs (e.g., it is snowing outside). There are memory beliefs (e.g., I recall having had bacon and eggs for breakfast yesterday) and hence beliefs about the past (e.g., I went camping at the Pinnacles with my friends John and Pete in July 1988). There are beliefs in other minds (e.g., my wife exists). There are introspective beliefs (e.g., I am being appeared to greenly, I am in pain). There are also *a priori* or self-evident beliefs (e.g., $2 + 2 = 4$). There are moral beliefs (e.g., it is wrong to commit murder). There are philosophical beliefs (e.g., there are immaterial substances). There are religious beliefs (e.g., God is guiding my life).

By saying that I hold these sorts of beliefs, I am saying that I believe certain propositions. By saying that I believe these sorts of propositions I am saying that I take a certain cognitive stance toward them. I mentally affirm them or feel that they are true. To say that I believe these propositions is not to say that I am certain or maximally confident of them all. Beliefs have a degree of conviction index. Some beliefs are firm; others are less firm; some are weak. My belief that there is a cat walking across the street, for instance, is held more firmly than most of my beliefs about what I did about this time last summer. My belief that $2 + 2 = 4$ is held more firmly than I hold these other beliefs. Moreover, to say that I believe the above propositions is not to say that I am always conscious of them. We can only be conscious of a very limited number of propositions at any given time. Hence, at any given time most of our beliefs are non-occurrent. We might say that they are stored in memory and await retrieval upon reflection. In contrast to occurrent beliefs, these are dispositional beliefs.^[1] There is also a diachronic dimension to our beliefs. Some of our beliefs are held for long periods of time, others are relatively short lived. Sometimes we continue to hold the same belief but through time we hold it less firmly. Lastly, clearly some of our beliefs run deeper or are more central in our structure of beliefs than others. My belief that it is raining outside does not run as deep as my belief that there is an external world or there are other minds. Many of my other beliefs depend on the latter, whereas few depend on the former.

Our beliefs then have various properties, and these suggest ways in which we can evaluate our beliefs. Most of the above are psychological properties, but there are other ways in which we can and do evaluate our beliefs. We speak of beliefs as being true or false. Natural theology, for instance, claims to

^[1] Using the analogy of a computer, we can think of occurrent beliefs as the information that is on the screen and dispositional beliefs as information stored in memory that can be retrieved by scrolling down a page or clicking on an icon. However, there is also *new* information a computer can *acquire* by utilizing information it already has (e.g., by way of its programming software, data in memory). This third aspect to computer information processing is psychologically analogous to what we can call a *disposition to believe*, which is distinct from occurrent and dispositional beliefs. Whereas dispositional beliefs are beliefs that are accessible via a memorial retrieval process, dispositions to believe are beliefs that are accessible only through a process of belief formation. See Robert Audi, "Dispositional Beliefs and Dispositions to Believe," *Nous* 28:4 (1994), pp. 435-464.

provide true beliefs about God. But we also speak of beliefs as rational, justified, or - combining both concepts - as rationally justified. Of course, even here there is an important distinction. We sometimes speak of rational beliefs as those that are conducive to certain practical goals or prudential matters. For instance, holding certain beliefs may be important to one's health or achieving some particular goal in life. Beliefs that are rational in these senses are rational in a *non-epistemic* sense. Their rationality is assessed with respect to something other than the truth goal of believing. Epistemologists, however, are primarily interested in a different sense of rationality, one that is relevantly related to the goal of believing what is true and not believing what is false, the so-called epistemic point of view. Hence, they speak of the *epistemic* rationality or justification of our beliefs. Advocates of natural theology also claim that theistic arguments provide an epistemically rational justification for theistic belief. This is the relevant general sense of rationality under consideration here.

Hence, one of the goals of epistemology is to locate a plausible account of what it means for a belief to be rational and to spell out the sort of conditions required for a belief to be rational or justified. But several different accounts emerge at this juncture.

A. A. *Deontological Rationality/Justification*

The words rational and justified are often used synonymously, or at any rate, with one modifying the other, as in rational justification. These terms have a *normative* ring to them. The normativity here, especially in relation to the word "justification," suggests the sort of normativity associated with ethical theory, so-called deontological normativity. Thus, lurking in the neighborhood of justification are associations with *duty*, *obligation*, *permission*, and *blamelessness*. To take the relevant analogy from human behaviour, Billy was justified (morally, prudentially, or legally) in doing A just if in doing A Billy was not in violation of any relevant duties or obligations. This is not to say, of course, that Billy was obligated or required to do A, only that he was permitted to do A (i.e., that A's negation was not obligatory), because his doing A did not involve him in the violation of any relevant rules or regulations. So if Billy is legally justified in purchasing alcohol at age 21 this means that Billy does not contravene any of the laws of the state in purchasing alcohol. It does not mean that there is a law which places a legal obligation on Billy to buy a bottle of Jack Daniels, though such a law would no doubt be welcomed by a large number of American college students.^{2[2]} A fairly long-standing tradition in philosophy has maintained something like this with respect to our cognitive life. Epistemic justification is a matter of being epistemically responsible with respect to what one believes, having a permission to believe something, or

^{2[2]} Of course a person can have an obligation to do A, and in that case S's doing A will be justified. Whatever action one is obligated to perform is an action one is *ipso facto* permitted to perform. Moreover, whatever action one is permitted to perform is such that in doing it there is no rule that obliges one not to perform it. But intellectual permission remains distinct from intellectual obligation.

being in the right epistemically speaking.^{3[3]} What this in turn requires is conformity to certain rules or principles that are governed by the epistemic point of view, roughly, the goal of believing what is true and not believing what is false.

There are really two distinct ideas associated with deontological rationality. The first is the positive notion of an epistemic *permission* or *right* to believe; the second is the negative idea of *freedom from blame*. Although the former entails the latter, the converse does not hold. In ethical theory, there are situations where an action is not right or permissible but a person is nonetheless free from moral blame if she performs the action. The typical case here is one where, given a person's particular circumstances, she did all that could reasonably be expected of her, or not performing some action was beyond her voluntary control. One can be without fault in doing A because the action was somehow the result of one's upbringing or circumstances beyond one's control, but the action would not on that account also be permissible. Similarly is important to distinguish between epistemic permissibility and epistemic blamelessness. Although the former entails epistemic justification, strictly speaking the latter does not. And if we construe each as an instance of justification, the former represents a more objective justification whereas the latter is a kind of subjective justification.^{4[4]}

It is also important to note here two different ways of spelling out the nature of intellectual obligations and hence epistemic responsibility. We might say that a person S is rationally justified in believing some proposition p just if there are no relevant rules or principles that would prohibit or forbid S from believing that p. Hence S is permitted to hold the belief that p, in much the same way that S would be permitted to perform action A just if no rule forbade S's doing A. S is justified in the deontological sense just if S has not violated in any intellectual obligations in believing p. But as the relevant *moral* rules or principles apply to actions, the *epistemic* rules are naturally understood to apply to doxastic states, acts of believing of

^{3[3]} The deontological conception has its roots in Locke, Hume, and Descartes. See Alvin Plantinga, *Warrant: The Current Debate* (New York: Oxford University Press, 1993), chapter 1, and Nicholas Wolterstorff, *John Locke and the Ethics of Belief* (Cambridge: Cambridge University Press, 1996). Deontologism has also been a common epistemological staple among many 20th century Anglo-American philosophers. See Roderick Chisholm, *Theory of Knowledge*, 2nd edition (Englewood Cliffs, N.J.: Prentice-Hall, 1977); Carl Ginet, *Knowledge, Perception, and Memory* (Dordrecht: D. Reidel, 1975), p. 28; Laurence Bonjour, *The Structure of Empirical Knowledge* (Cambridge: Harvard University Press, 1985), chapter 1; Margery Naylor, "Epistemic Justification," *American Philosophical Quarterly*, 25, no. 1 (1988), pp. 49-58; Paul Moser, *Empirical Justification* (Dordrecht: D. Reidel, 1985). For deontologism in relation to theistic belief, see Alvin Plantinga, "Reason and Belief in God" in *Faith and Rationality*, ed. Plantinga and Wolterstorff (Notre Dame: University of Notre Dame Press, 1983); Nicholas Wolterstorff, "Can Belief in God be Rational if It Has No Foundations," in *Ibid.* Roderick Chisholm, Feldman. See chapter 11 for more on deontological rationality in its historical perspective.

^{4[4]} See Paul Moser, *Knowledge and Evidence* (Cambridge: Cambridge University Press, 1989), pp. 40-41, and John Pollock, *Contemporary Theories of Knowledge* (Savage, MD: Rowman and Littlefield, 1986), pp. 124-132, 183-190.

withholding belief. Here the possibility of violating some intellectual obligation implies circumstances in which a person believes *p* when she ought not to believe *p* or in which a person fails to refrain from holding the belief *p* when she ought to hold the belief that *p*. But this construal of epistemic duty is problematic. A rule that forbids a particular belief implies that a person can, or has it within her power, to refrain from believing *p*, at least given the widely accepted principle that "ought implies can." But it is generally conceded that we have no such direct power over our beliefs.^{5[5]}

A more reasonable way of developing a deontological view of justification, though, is in terms of principles or rules that forbid, permit, or require what *is* within our voluntary control and which is appropriately related to the formation of beliefs. There are many sorts of actions that are epistemically relevant: investigation, evidence gathering, reading the arguments of people with opposing views, reflecting on one's own beliefs and the evidence for them. Moreover, these sorts of actions do, at least in the long run, have an affect on the beliefs we find ourselves holding. Since we do exercise voluntary control over our actions, epistemic responsibility can be construed as not violating any duties that apply to epistemically relevant actions. Hence, there is here a kind of indirect control or authority we exert over our cognitive lives by engaging in practices that are likely to put us into possession of true beliefs and help us avoid acquiring false ones. We will be rationally justified in holding some particular belief that *p* just if one has not violated any intellectual obligations that attach to epistemically relevant belief forming and maintaining activities.

These two different ways of spelling out intellectual obligations clearly affect the account one gives of what the relevant epistemic rules or principles are. Since we are talking about the "epistemic" justification of belief (as opposed to say, prudential justification of belief), both accounts will agree that the relevant concept will be that of not violating any *epistemic, cognitive, or intellectual* obligations. If we return to the notion of the epistemic point of view, we will discover that acquiring true beliefs and avoiding false beliefs serves as the guide for determining epistemic duties and obligations. But on the first account, we will have duties like refraining from believing in the absence of sufficient evidence or accepting those propositions that we see to follow from, or to be rendered probable by, some other proposition(s).^{6[6]} On the second account, though, our duties will relate directly to actions not our doxastic states. We will have duties to investigate controversial claims, gather evidence, or gather additional evidence, especially when we are confronted by evidence against our beliefs.

It seems further that the application of epistemic obligations to epistemically relevant practices draws attention to two aspects of rationality and justification. We can speak of a belief's justification at a

^{5[5]} This point is argued with considerable clarity by William Alston in his "Concepts of Epistemic Justification" and "The Deontological Conception" in Alston, *Epistemic Justification*.

^{6[6]} As Alston explains: "On a deontological conception of justification, the principles will forbid beliefs formed in such a way as to be likely to be false, and either permit or require beliefs formed in such a way as to be likely to be true" (1989c, p. 117).

given time as a response to the adequate evidence the person has at that time. Call this *synchronic* justification. But we can also speak of a belief's justification through time, or more specifically, its justification at a specific time as the result of having adequately engaged in epistemically relevant practices over some period of time. Call this *diachronic* justification. Diachronic justification entails synchronic justification, but not conversely. Given the lack of direct voluntary control we have over most of our beliefs, epistemic duties can only be reasonably applied to epistemically relevant belief-forming practices that are within our power and affect in the long run the sorts of beliefs we end up having. But in that case, it is clear that deontological justification is a quality that applies primarily to diachronic justification.^{7[7]}

B. Evidentialism and Propositional Evidential Rationality

The relationship between deontologism and evidence is an important one. In fact, it gives rise to a second account of rationality, closely related to the deontological conception. A common and natural way of understanding rationality or justification is in terms of *evidence*. Many discussions of rational or justified belief simply begin by assuming that rationality or justification is a matter of evidence. A rational belief is one for which a person has sufficient evidence or, more strongly, a belief based on sufficient evidence. There are obvious connections between this general evidentialist conception of rationality and the deontological view. For instance, the deontological concept of rationality often stipulates a duty to believe only on the basis of evidence or to proportion one's belief to the degree of evidence. In this case, the deontological *concept* entails an evidentialist *condition*. Having adequate evidence becomes a necessary and perhaps sufficient condition for being epistemically responsible. Of course some philosophers who advocate evidentialist rationality or justification do not say anything about intellectual obligations or duties. They simply equate rationality or justification with adequate evidence.^{8[8]} Here deontologism drops out of the picture and rationality is just taken to mean "sufficient evidence," or there is some similar account of degrees of rationality that run parallel to the degrees of evidence one has for one's belief. If epistemic rationality is a positive appraisal of belief with respect to the truth goal of believing, then a rational belief will be one that scores high with respect to this goal. It will be adequately truth-directed or in some sense likely to be true. It seems natural, then, to construe the rationality of a belief in terms of evidence one has for supposing that one's belief is likely to be true. By contrast, an irrational belief will be a belief for which one has little or no reason to suppose that it is true.

^{7[7]} I initially introduced the distinction between synchronic and diachronic justification in my 1996 Oxford D.Phil thesis. This account was inspired by the five senses of rational belief developed by Richard Swinburne in his *Faith and Reason* (Oxford: Clarendon Press, 1981), pp. 45-61. Swinburne has since developed a detailed and explicit distinction between synchronic and diachronic justification in his *Epistemic Justification* (Oxford: Clarendon Press, forthcoming).

^{8[8]} For instance, J.L. Mackie does this in his critique of theism. In this he is representative of a large population of epistemologists, Earl Conee and Richard Feldman, Chisholm, Swinburne, Kretzmann.

There are, of course, narrow and broad ways of understanding evidence, and this leads to some different ways of understanding evidential rationality. One account of evidential rationality takes evidence in the narrow sense of other propositions (or beliefs) that provide evidential support for the target belief. It is propositional evidence that is relevant here, so we can call this *propositional evidential (PE) rationality*. Since evidential support comes in degrees, PE-rationality comes in degrees and is proportional to the strength of one's propositional evidence. But it is natural to suppose that there is a line that divides adequate evidence from inadequate evidence. Hence, we should say that a belief that *p* is PE-rational only if it is based on other beliefs that provide adequate evidential support for *p*, where this rationality can be increased by more evidence. Since epistemic rationality is related to the truth goal of believing, "adequate" support is cashed out in terms of "scoring high" vis-à-vis the truth goal of believing. So there will be two requirements for adequate evidence. First, irrational and non-rational beliefs cannot confer rationality, so one's evidence must consist of beliefs that are themselves rational. Secondly, given this evidence, it must be at least probable (i.e., more probable than not) that *p* is true. Hence, rational beliefs are beliefs that are rendered inductively probable by our evidence.

Although the basic idea here is clear enough, some elucidation and amplification is needed.

First, as suggested above PE-rationality can be formulated in a strong sense where it requires that one's belief be *based* on the evidence, or it can be formulated more modestly with the demand that one merely *have* or *possess* adequate evidence. Both views are somewhat difficult to spell out in precise detail, or at least in any way that is uniformly accepted by philosophers. What exactly is involved in having evidence for a belief? Adequate propositional evidence a person has for a belief surely cannot be restricted to the beliefs of which one is currently conscious. That would make one's evidence base far too narrow and one would in consequence fail to be rational in most of one's beliefs. On the other hand, it would be too generous to include whatever one has a disposition to believe or what is otherwise available to the person but which is not an actual belief held by the person. It is thus tempting to take the evidence one has for a belief to be whatever information one has acquired and which is stored in memory. However, we have lots of information stored in memory, but it might be too generous to include all that information, even though we mentally possess it and can in principle access it upon reflection. Of course, our reservations here stem from the sense that much of the information we possess in memory cannot be easily retrieved. A more reasonable position, then, would allow some non-occurrent beliefs to be evidence one has, as long as such beliefs are fairly readily accessible upon reflection.

But what is the difference between having such evidence and one's belief being *based* on the evidence? Typically the distinction is explicated in terms of the addition of a causal requirement to the state of having evidence. If my belief *p* is based on evidence *e*, then I have *e* and *e* is causally responsible for my believing *p*. There being adequate evidence for the proposition *p* is a reason *to* believe *p*, and my having that evidence is a reason for me to believe *p*. But it will be the reason *why* I hold the belief *p* only if it motivates my act or state of believing *p*. First, I may have evidence for a particular proposition *p* but not believe *p* because I fail to see the connection between the evidence and *p*, and nothing else inclines me to

accept p . Secondly, even if I have evidence e for p and believe p , something other than e may be causally responsible for my holding the belief that p . This is often the case when one has some other evidence e^* that is sufficient to either psychologically generate or sustain the belief that p . One may see the connection between e^* and p , but the relationship between e and p . But even where one sees the connection between some evidence and a proposition, other psychological factors may be responsible for causally generating or sustaining one's belief. Perhaps I believe p because it brings me psychological comfort, is conducive to my survival, is aesthetically pleasing, or is the result of some other emotional attachment, not because e provides adequate evidential support for it. We sometimes suspect that this is happening when people hold beliefs before acquiring evidence for them, or when a person's degree of confidence in some proposition significantly exceeds the actual evidence the person has. In other instances, this underlies the retention of a belief when a person no longer had the evidence they do. Where a person holds a belief on the basis of evidence, though, the evidence is what (at least partly) causally sustains the belief.^{9[9]} Moreover, unlike merely having evidence e for a proposition p , when a person believes p on the basis of e , the person sees the logical connection between e and p (however minimally this may be conceptualized) or will recall such a connection at a later time. So the basing relation requires a causal requirement and the perception of a link or connection between one's evidence and the target belief.

Is there a reason to prefer one of these formulations to the other? As suggested above, a person who merely has adequate evidence for a belief may in fact hold a belief for reasons that are not epistemic reasons. But in that case, the way in which the belief is formed or sustained is not truth-oriented. If the belief turns out to be true, it will be a matter of one's good fortune. One may have good evidence that suggests that one's spouse is being unfaithful. But if belief in the infidelity of one's spouse is actually motivated by a suspicion induced by watching too many Hollywood films, then even if the belief turns out to be true, one gets it right for not very good reasons. Such a person may be said to *have* a justification for her belief available from the stock of her other beliefs. But there is a plausible argument here against the idea that the person is PE-rational in holding the belief since it was not formed in a way sensitive to the evidence. Some of us share the intuition that rational beliefs must be informed by one's evidence. For this reason I think the more reasonable view of rational belief requires that one's belief be based on adequate

^{9[9]} An alternative view is to take the basing relation to require only that the subject believe that his belief was caused by the evidence or that subject simply believes that the grounds are adequate for the belief. Keith Lehrer, for instance, argues that the basing relation does not require a causal condition. For a response to this, see Richard Swinburne, *Epistemic Justification* (Oxford, forthcoming), chapter 5. Philosophers who adopt this view often advocate a coherentist view of rationality. As I will explain below, that view of rationality runs into significant problems if it requires a basing relation that is causal. But the attempt to avoid these problems by removing a causal requirement really undermines the intuitive distinction between having evidence and basing one's belief on it.

evidence, that it is actually utilized in the formation or sustenance of the belief, not that one merely has such evidence.^{10[10]}

Secondly, the idea of the supports-relation needs elucidation. Notice first that a rational belief requires *good* evidence, not conclusive evidence. This is important because previous generations of philosophers often restricted the supports-relation to deductive or syllogistic entailments. This would make sense if epistemic rationality had to be *truth-preserving* or *truth-guaranteeing*. But the epistemic point of view that is analytically related to epistemic rationality is a matter of being in good position, not the best, with respect to believing what is true (or avoiding believing what is false). One can have good truth-directed or truth-oriented reasons for a belief, even if these reasons do not deductively entail the belief. Hence, adequate evidence is sufficiently satisfied by a supports-relation that is a good probabilistic inference.

In the previous chapter we discussed the idea of beliefs being "rendered probable by our evidence, and I add some further nuances to this in the following chapter. However, here it is sufficient to point out the basics. The position here presupposes that there are deductive and inductive standards or criteria that dictate the extent to which one proposition is likely to be true given the truth of some other propositions. That is to say, there are logical principles or standards for *what* counts as evidence as for what and *how* strong the evidence is.^{11[11]} So presumably it will be rational for me to believe that (p) Socrates is mortal if I base this on the beliefs that (q) all men are mortal and (r) Socrates is a man, where q and r are both rational beliefs. Here q and r together deductively entail p. We can say that p has a probability of 1 (or is certain) on the conjunction of q and r. Similarly, it will be rational for me to believe that (u) Lisa is a philosophy major given that I arrive at this belief on the basis of my rational belief that (s) Lisa is enrolled in my philosophy class and that (t) 8 of the 10 students enrolled in the class are philosophy majors. Unlike the first example, the evidence base here includes a statistical proposition, specifically one that reports the

^{10[10]} Some philosophers attempt to revolve this conflict by distinguishing between doxastic and propositional rationality or justification. Doxastic rationality means that one's own belief-state is rational. Propositional rationality means that the proposition or belief *type* is a rational one. The former is personal, whereas propositional rationality is impersonal. Similar difficulties are associated with assessing the rationality of an action. We tend to think that there is a difference between a person S's doing the right thing for the wrong reason (or no reason) vs. S's doing the right thing for the right reason. In the former case, the *action* is the right one, whereas in the latter we say, not only that S did the right thing but it was right for S to do it. If S did the right thing for very bad reasons, some would say that S's action was not rational, even though the act is (objectively speaking) the right course of action. For more on this, see Robert Audi, *The Structure of Justification*, pp. 275-79, 425-430.

^{11[11]} If this were not so, there could be little doubt or debate about the epistemic efficacy of natural theology. Although this would make the arguments and length of the present book considerably shorter, the end product would be unphilosophical in the extreme. Compare the situation in science. The denial of objective standards of probability would entail that any observation is consistent with and even supports any hypothesis.

actual number or proportion of philosophy majors in the finite set of students enrolled in my class. The statistical probability that a student in my philosophy class is a philosophy major is .8 or 80%. My evidence, *s* and *t*, does not deductively entail the target proposition *u*, so *u*'s probability must be less than 1 on *s* and *t*. But the evidence does render it more probable than not by virtue of the statistical facts that constitute part of my evidence.^{12[12]}

In other cases inductive reasoning takes the form of inference to best explanation. As developed in the previous chapter, here the probability of *p* on evidence *e* is a function of the explanatory power of *p* and the prior probability of *p*. We had recourse to this sort of inductive reasoning in the previous chapter in the effort to construct a good, cumulative case theistic argument. But we employ inference to best explanation on a daily basis with respect to the more mundane affairs of life. I believe that the Smiths are not home on the basis of my beliefs that their lights are out, Jack Smith said he was taking his family out to dinner on either Thursday or Friday, their car is not in their spot in the carport, and it is near dinner time on Thursday. Is my belief that the Smiths are not home likely given the evidence on which I base this belief? It would seem so. Relevant inductive criteria here include predictive power of my belief. Our observational evidence is precisely what we would expect if "the Smiths are not home," but not what we would expect if they were not home. Their not being home also fits our background knowledge (e.g., Jack Smith's testimony about taking his family out to dinner). Given the evidence I have, it can be argued that my belief is more probable than not. This is not to say that it would still be more probable than not if I had other evidence (e.g. evidence that the Smiths like to trick their neighbors about their not being home). Evidential probability is a function of the total relevant evidence I have at the time, but this can change with the introduction of new evidence. (I will discuss evidential probability in greater detail in the next chapter).

C. Evidentialism and Coherentism

PE-rationality exploits the widely held view that rational beliefs are beliefs for which there is good *reason* to suppose that they are true. This is just what we expect given that epistemic rationality is positively truth-oriented. It is natural to think of such reasons then as being constituted by other propositions that a person accepts as true and that give a good reason to suppose that a particular proposition is true. And there is no doubt that a fair number of our beliefs are held on the evidential basis of other beliefs and are rational on such grounds. But is this what rationality means or requires? Not in any plausible sense.

^{12[12]} More technically, we can say that the statistical probability of "a student in my philosophy class is .8" and "Lisa is a student in my philosophy class" makes it logically probable to degree .8 that Lisa is a philosophy major. Statistical probabilities will always yield logical probabilities in this manner. The general formula is: If the statistical probability of A being B is Q and S is A, then the logical probability of S being B is Q. Of course, inductive probability does not normally have an exact value. It does here only because of the presence of a statistical probability.

First, many of the beliefs that most people take to be rational are not based on propositional evidence, much less adequate evidence. As the result of when being appeared to redly, I believe that there is something red in front of me. Another person takes it as quite obvious that he exists. A young child accepts his teacher's testimony that $2 + 2 = 4$. Upon having a memorial experience of last summer's hike through the Pinnacles, I find myself believing that I hiked the High Peaks Trail. As I reflect on the argument form *modus ponens*, the corresponding conditional strikes me as obviously true. In these cases, beliefs are not held on the evidential basis of other beliefs. In these examples, the target belief is formed directly, either by way of extrospective experience, testimony, introspection, memory, or is grasped intuitively as an *a priori* truth. It is not held on the evidential basis of other beliefs. But then under the propositional evidential rationality view, these beliefs are not rational. This is a queer conclusion indeed. Surely the beliefs in question *are* rational. There is certainly no plausible deontological account of rationality according to which they are not justified. So basing one's belief on evidence cannot be required for rationality in that sense. And since we are inclined to regard these beliefs as rational in some sense, rationality cannot *mean* basing one's belief on propositional evidence.

A second and more fatal problem, though, is that the propositional evidential account of rationality threatens to generate an infinite regress that will entail that no human is rational in any belief he or she holds. Suppose that some belief B1 is rational only if it is based on "adequate evidence." If "adequate evidence" requires further rational beliefs, then B1 will be rational only if a person has another rational belief B2 that provides adequate evidence for B1. But then given the definition of rationality, there must also be another belief B3 that supports B2. But since B3 must also be rational, there must be another belief B4 that provides adequate evidential support for B3. Now there are only three ways this series can go. It can continue *ad infinitum*, return back to some belief B_n that has appeared previously in the series, or it can terminate in a belief that is rational but not by virtue of being based on some other belief(s). Since it is not psychologically possible for human persons to hold an infinite number of beliefs, if such a regress is an entailment of an account of rational belief, then an infinite regress forecloses rational belief altogether. Not only is there not enough time for a human person to acquire an infinite set of beliefs, but any infinite set of beliefs would eventually involve formulations too lengthy for the human mind to understand. And if a propositional formulation can't be understood, it can't be believed. True, we may understand that a particular formulation expresses some truth, but we could never believe the truth it actually expresses.^{13[13]}

On the other hand, suppose the series of beliefs, each of which is held on the evidential basis of the other, loops back or returns to a belief that has occurred previously in the series. Here we have a *circular* chain of beliefs. S's belief B1 is based on B2, B2 is based on B3, and eventually we arrive at some belief B_n that is based on B1. There are two considerations here, one causal and the other evidential. Both are involved in the idea of holding some belief on the evidential basis of some other belief. The relation of evidential dependence seems to be transitive. So if B1 is evidentially dependent on B2, B2 evidentially

^{13[13]} The point is developed by Robert Audi in *The Structure of Justification*, p. 127.

dependent on B3, and B3 eventually dependent on B1, then B1 will be evidentially dependent on itself. Of course, there is nothing implausible about a belief providing evidence for itself. This is presumably the idea behind self-evident truths. I'll return to this below. However, this really breaks away from the spirit and letter of propositional evidential rationality, where rationality requires that one belief be evidentially supported by some other, *different* belief. But a more serious problem emerges with reference to the idea of causal dependence that is involved in the "based-upon" relation. If transitivity holds between causal relations, as seems to be the case, then a circular doxastic chain will entail circular doxastic causality. There will be some belief is, not just evidence for itself, but its own causal ground, It will be causally dependent on itself.^{14[14]} If anything constitutes a Charlie horse between the ears, this does.

So there are some fairly strong grounds on which to reject PE-rationality. What motivates such a view then? I think it originates at least in part from two closely related tendencies in Western philosophy. First, there is a long-standing tendency in Post-Enlightenment philosophy (at least up to the 20th century) to view of human persons as naturally reflective and thus able to provide an account of the grounds of their beliefs and/or to respond to various objections to their beliefs. The concept of epistemic rationality and justification has developed in this context. But this naturally lends itself to some rather extravagant views about rationality itself. What it takes to provide a positive account or defense surely does require presenting evidence in the form of other propositions. Given this first assumption, the justification of one's belief naturally gets interpreted in terms of an activity of demonstrating or showing some epistemically relevant item about one's belief, e.g., it has evidence, can be defended against objections, etc. Hence some philosophers have an unfortunate tendency to confuse the activity of showing the rationality of a belief with the state of being rational in holding a belief. Now to show that a proposition is rational (or true), one must adduce reasons that support the rationality (or truth) of the proposition. It follows that there must be reasons and that these reasons are accessible to the subject engaged in the showing activity. Furthermore, it follows that there must be a clearly articulated argument, which of course requires propositions. But there is an important distinction between the state of being rational and the activity of showing that one is in that state, or showing that there is some proposition conducive to being believed in a rational way. In much the same way, there is a conceptual distinction between my showing that I have received a letter from Kenny Wayne Shepherd and my simply having received the letter. The latter is not dependent on the former. Similarly, my ability to reflect on the rationality of my beliefs should be conceptually distinct from the question of whether my belief has the property the presence of which I seek to determine by reflection. So in addition to the problematic character of PE-rationality, it is dubiously motivated I think.

Of course, the proponent of PE-rationality need not altogether give up on the idea that propositional evidence is necessary for rational belief. He may simply jettison the requirement that all

^{14[14]} The circularity here is synchronic, not diachronic. The circularity problem only arises from circular causal relations between beliefs at a given time. It does not arise if, for instance, at time t1 <S's belief B2 causally sustains B1 and B3 causally sustains B2> and at time t2 <S's belief B2 causally sustains B3 and B1 causally sustains B2>.

beliefs be *based* on propositional evidence. As noted above, there are really two views of PE-rationality. One requires that one's belief be based on the evidence, where this involves a causal condition. The other requires only that a person have evidence. The PE-rationality advocate can simply maintain the latter. He need not hold that this evidence is consciously or unconsciously taken account of in the formation or sustenance of the belief, much less than the evidence causally sustains the belief. This move allows the PE-rationality advocate to circumvent the infinite regress and circularity problems introduced above. Perhaps all or some beliefs acquire their rationality by virtue of the person simply possessing other rational beliefs, which presumably sustain some evidential or logical relation to each other, even if the person does not actually infer one from the other or hold one belief on the basis of another.

The natural way of spelling this out is in terms of a coherence theory of rationality or justification.^{15[15]} According to epistemic coherentism, what justifies or confers rationality on a belief is a relation of coherence that obtains between the belief and the rest of a person's beliefs. What exactly does coherence include? Most coherentists argue that a necessary element of coherence is logical (and perhaps also probabilistic) consistency, though some claim that a belief need not be logically consistent with *all* of a person's beliefs to be rational. But propositions may be consistent because they are entirely unrelated in their content, so coherentists typically emphasize consistency that results from a fitting together or mutual reinforcement between beliefs. Hence coherentists tend to make comprehensiveness and explanatory power elements of coherence relations. Here there are a significant number of pervasive inferential connections between a person's beliefs, including various mutual support relations.^{16[16]} More precisely stated, this is *holistic coherentism*. It differs from the circular justification discussed above in that though rationality does not (necessarily) involve evidential relations in a one-to-one or linear structure. Rather the evidence for any particular belief is its relation to all (or most) of a person's other beliefs. It is thus holistic.

This model can be used to shore up the inadequacy of PE-rationality in one of two ways. First, one may admit that some beliefs are rational because they are based on other beliefs, but that such a linear series of belief relations terminates in a set of beliefs that are rational by virtue of their *coherence* with the rest of one's beliefs. Common sense beliefs such as the one's introduced above may be rational by virtue of coherence. A person does not deduce their sensory perceptual or memorial beliefs from other beliefs in their noetic structure, but these beliefs cohere in various ways with the totality of one's noetic structure. A second option, here, is simply to opt for exclusive holistic coherence as the necessary and sufficient condition for rational belief. One may insist that every rational belief is rational by virtue of its coherence with the rest of a person's beliefs. Here the class of beliefs that are rational by virtue of being based on

^{15[15]} It is important to distinguish coherence theories of justification from coherence theories of truth. According to the former, coherence is what makes a belief justified. According to the latter, coherence is what makes a belief true.

^{16[16]} For a detailed account of this, see Laurence Bonjour, *The Structure of Empirical Knowledge* (Cambridge: Harvard University Press, 1985), chapter 5.

other rational beliefs is eliminated altogether. We assess rationality solely in terms of holistic coherence. (I'll discuss this further below).

II. Evidentialism and Foundationalism

The identification of rationality with propositional evidence is quite pervasive, and this can explain the appeal of propositional evidentialism, even in its coherentist forms. But perhaps there is something mistaken in the idea of construing evidence as *exclusively* propositional. Perhaps some beliefs have evidence or are based upon grounds but not in the form of other propositions. Here we can pursue the third suggestion in the above trilemma. The series of beliefs that are rational by virtue of being based on other rational beliefs terminates with some set of primitive or basic beliefs, which are evidentially rational but not by virtue of being based on other beliefs or even by virtue of coherence relations with other beliefs.

A. Classical Foundationalism

Above I suggested the possibility that beliefs could constitute their own evidence or be *self-evident*. Some propositions (and by extension beliefs) seem to have this property. They wear their evidence on their propositional sleeve as it were. We see their truth as we understand their terms. The prime candidates would be beliefs about mathematical and logical truths, or more broadly so-called *a priori* truths.^{17[17]} My belief that $2 + 2 = 4$ has a kind of internal luminosity. Or take my belief that nothing can be both green and not-green at the same time and in the same respect. Or consider my belief that all bachelors are unmarried males. These propositions are rational for me to believe, but not because I have inferred them from some other propositions. Nor is it ala coherence relations that these beliefs are rational. They may indeed cohere with the rest of my noetic structure, but if they didn't many would still regard such beliefs as rational. They carry the force of being true in with them. We grasp these *a priori* or by intuition. Their rationality or justification is independent of sensory perceptual, introspective, or memorial experience.^{18[18]}

^{17[17]} By analytic I mean either a logical truth or a proposition that is true by virtue of the meaning of the terms of the sentence that expresses it.

^{18[18]} To say that I am justified in believing a proposition "independent" of experience in this context does not entail that I could hold an *a priori* belief, much less it be justified, if I never had any experiences at all. An *a priori* belief is not necessarily an innate idea. Experiences may very well be required if I am to possess the requisite concepts involved in an *a priori* belief (e.g., the concept of bachelorhood). *A priori* beliefs may involve information that originated from sense experience, but the point to *a priori* justification is that a belief is not justified by such experiences. An *a priori* proposition or belief is one that, *once the relevant concepts are acquired*, one sees to be true without recourse to experience. And its justification, or reason for supposing that it is true, does not depend on experience. It is crucial to distinguish the dependence of the acquisition of certain concepts on experience from the dependence of a proposition's justification on experience.

In a similar way we hold beliefs about our current states of consciousness. My belief that I am in pain, that I *seem* to see a computer in front of me, or that I am tired also carry with them this force of being true that is quite independent of their logical relation to other beliefs I may hold. They are internally evident, not in the sense of self-evident or *a priori* truths, but in relation to consciousness. The evidence here is worn on the sleeve of human consciousness, not the meaning of the propositions themselves. The beliefs are what we might call *incorrigible*. Incorrigible and self-evident truths carry with them important epistemic immunities: immunity to doubt, revision, or error. For this reason they have been regarded as rational independent of evidential relations to other beliefs.^{19[19]}

The model that emerges here is *foundationalism*, specifically so-called classical foundationalism, or more exactly, modern classical foundationalism. Foundationalism is a way of thinking about rationality itself as well as the over all structure of our rational beliefs. Both issues are related. For the foundationalist, a rational belief is either based on other rational beliefs which provide propositional evidence for it, or it is rational in some way other than its relation to other rational beliefs. The latter are *properly basic beliefs*. For most modern classical foundationalists, properly basic beliefs are confined to a narrow set of beliefs that possess various epistemic immunities: immunity from doubt, revision, or error. This is largely the legacy of Cartesianism and the effort to base knowledge on immovable foundations so as to disarm skepticism. But both properly nonbasic and basic beliefs involve evidence, just evidence of different sorts. There is self-evidence, the evidence of immediate consciousness, and inferential evidence from other propositions. Hence, instead of confining evidence to the narrow range of propositional evidence, foundationalists extend it to include more broadly non-propositional grounds or evidence. The rest of our beliefs are, if rational or justified, derived by way of logical inference (typically deduction) from such properly basic beliefs.

Other foundationalists are keen to broaden the range of non-propositional evidence more than modern classical foundationalists do. It takes little reflection to see that precious little in the way of our beliefs about the world can be generated from beliefs possessing Cartesian certainty, even if inferential processes are not restricted to deductive entailment. But we have many beliefs about objects in our physical environment, so-called sensory perceptual beliefs. Although not based on propositional evidence, some have argued that these are nonetheless *evident to the senses*. Aristotle and Aquinas recognized these, and after being lost at sea in the post-Cartesian storm of early modern philosophy, Locke notwithstanding, they were reintroduced to modern philosophy by way of Thomas Reid and the common sense realist tradition. For the modern foundationalist in the Cartesian tradition, sensory perceptual beliefs are rationally justified only if they are derived (typically by way of deduction) from other beliefs, which are either themselves

^{19[19]} Of course, it may be that they can or do receive evidential support from other beliefs. The main idea is that the person does not base them on such considerations or they are sufficiently justified without reference to these other beliefs.

self-evident or evident to consciousness or ultimately based on beliefs of these sorts.^{20[20]} Reid challenged this and regarded the production of sensory perceptual beliefs directly from experiential grounds as rational. One is rational to believe that it is raining outside if this is how it seems to one. One moves directly from the experience of being appeared to in a certain way to the target belief. But Reid did considerably more than this to broaden the foundations of justified belief.

B. Reidian Foundationalism

Reid was guided by the principles of credulity and testimony as criteria for rational belief. The latter says, roughly, that all other things being equal, what people tell you is true. The former says, roughly, that all other things being equal, how things seem to you is the way they are. Hence, evidence extends to what people tell you and how things seem to you. Another way of putting Reid's point is that many of our ordinary, everyday beliefs are innocent until proven guilty. That is, we are rational to hold them until we have good reasons for supposing that they are not true or that our grounds for holding them are epistemically inadequate. Hence, we are rational to hold beliefs even if we do not have arguments or propositional evidence for them. That sort of evidence has its place. Many beliefs are rational because we base them on propositional evidence, and propositional evidence *against* our beliefs can undermine or override the rationality of our beliefs. Reid's basic position, though, was that to demand propositional evidence *for* rationality arbitrarily privileges one sort of evidence, reason or argument. There is also memorial evidence, sensory perceptual evidence, and the evidence of testimony.

What emerges here, then, is a very modest and broad view of evidential rationality, and one that can be incorporated into a foundationalist framework. The basic idea is that, absent sufficient reasons to the contrary, beliefs are rational to the extent to which they have or are based on adequate evidence broadly construed: self-evidence, memory, sense perception, introspection, and testimony, and credulity. So some beliefs will be basic and justified, and will serve as the grounds for further inferences. Put otherwise, any belief that is rational by virtue of being based on another rational belief is a member of an inferential chain that terminates in at least one properly basic or foundational belief.

The qualification here, "absent sufficient reasons to the contrary," is important. Propositional evidence may, of course, give us a sufficient reason for supposing that a belief is false. In other situations, I may acquire sufficient evidence for supposing that a ground of my belief is inadequate. In these cases, I acquire a sort of defeater for my belief in the form of other beliefs. Under these conditions, I would not be rational to continue holding my belief, even a basic one, at least not with the same degree of conviction. There is a kind of negative coherence condition here. Although coherence is not necessary for rationality, incoherence suffices to override the rationality of a belief. But even the Reidian foundationalist may go further and admit that positive coherence relations between basic beliefs or between basic and non-basic

^{20[20]} For an account of this, see Plantinga, *Warrant and Proper Function* (New York: Oxford University Press, 1993), pp. 182-185.

beliefs may increase the degree of rationality. What the foundationalist is committed to is the idea that some beliefs are rational without being based on other beliefs, or independent of evidential relations to other beliefs. This is logically consistent with there being evidence for the stock of basic beliefs, even along a coherentist view of evidence, where this evidence adds to the rationality of a belief. {N}

III. Rationality and Natural Theology

We have seen several ways of thinking about rational beliefs. There is *deontological rationality* according to which rationality is a matter of being epistemically responsible or not violating any intellectual obligations. There is the basic idea of *narrow evidential rationality* according to which a rational belief is one based on evidence in the form of other propositions. There is also the view of *coherence rationality*, according to which a rational belief is one that coheres with the rest of one's beliefs. There is, lastly, *broad evidential rationality*, according to which a belief is rational just if it is based on evidence, broadly construed to include various non-propositional grounds (e.g., sensory perceptual evidence, self-evidence, introspection, testimony). Here we have the strong sort of broad evidentialism of modern foundationalism and the more modest evidentialism that goes with the foundationalism of the Reidian tradition.^{21[21]} It is clear that many of these senses of rationality or justification overlap. Deontological requirements easily include evidential conditions. Evidential conditions may include coherence requirements of various sorts. The Reidian takes a very liberal view of the range of positive evidence, but can add on to these a negative coherence constraint of sorts by allowing sufficient counter-evidence to undermine the rationality of a belief.

What are the implications of all this for natural theology? Since one of the alleged epistemic functions of natural theology is as a source for rational beliefs about God, the preceding account of rationality properly situates us for an examination of how we can and should think about natural theology as a basis for rational beliefs about God. All too frequently discussions on natural theology, or specifically its epistemic efficacy or lack thereof, fail to adequately investigate an array of basic epistemological questions. (This will be very pronounced in later chapters).

Natural theology of course involves theistic beliefs arrived at by inference, so we are considering a species of beliefs whose rationality is conferred on them by other beliefs. And since only other rational beliefs can confer rationality, these other beliefs must themselves be rational. The idea of evidential rationality is certainly at home in this logical environment. But there is considerably more to the story as should be evident given the variety of ways of spelling out evidential rationality and the broader epistemological frameworks of propositional evidence as a basis for rational belief.

A. Deontologism and Natural Theology

^{21[21]} There are other senses of rationality that I will discuss in section IV of the present chapter.

From a deontological perspective, the conclusions of natural theology will be rational just if they and their premises are held in accordance with a person's relevant epistemic duties. Subjectively speaking, a person with very limited philosophical training could certainly do his very best in pondering the existence of the Universe and the beauty of the cosmos and come to the conclusion that God created the Universe. His reasoning may be quite simple, and his inductive standards may be inadequate to some extent but nonetheless true. But he will have done all that we could reasonably be expected of him at thinking through the fact of the Universe's existence and its order and just find himself believing in God on the basis of such considerations. He would certainly be epistemically blameless. He might also have a right to hold his theistic belief on such grounds.

Of course, one issue here is spelling out the relevant set of epistemic duties, and it isn't clear to what exactly they amount. However, I explained above that deontological constraints better apply to rationality and justification in their diachronic extension as opposed to their synchronic location since we don't have direct voluntary control over our beliefs at a given time. So deontological rationality applies to a state of belief at a specific time as the result of having adequately engaged in epistemically relevant practices over some period of time. It assesses the rationality of a belief from this angle. The deontological rationality of theistic beliefs held on the basis of theistic arguments is really a matter of the extent to which on the extent one has properly investigated relevant evidence and so on. Of course, one may properly investigate this relative to one's own standards and still fall short of some objective standards. But one would still be blameless. There is a distinction between subjective and objective diachronic rationality. Of course, one can hold synchronically rational theistic beliefs on the basis of theistic arguments without these beliefs being diachronically rational. So deontologism enters in only with respect to the diachronic evaluation of a belief's rationality. I see no reason why theistic arguments cannot provide a source for diachronically rational beliefs. (I'll say more about this desideratum in chapter 12).

B. Coherentism and Natural Theology

From a holistic coherentist view, the conclusions of natural theology will be rational just if they and the premises on which they are based fit with the totality (or majority) of a particular noetic structure. Now it certainly seems like many of the premises utilized in theistic arguments will cohere with the contents of most noetic structures: "a contingent universe exists," "the universe exhibits temporal and spatial regularities," "the universe is fined-tuned," "there are human persons with consciousness." If these sorts of propositions do not cohere with most people's noetic structures, then neither would most of the propositions in physical and natural science. But if we are discussing the noetic structures of particular people, one is bound to come across some people for whom some of the propositions employed in theistic arguments do not cohere with the rest of their noetic structure. For some, Thomas Aquinas' arguments involve propositions that depend on Aristotelian science and thus have been rendered outdated by modern and contemporary science. Clearly, some theistic arguments will involve propositions that do not cohere

with some noetic structures. But the variety of theistic arguments implies that it will be a rare occasion indeed when we find a noetic structure that is such that every premise of every theistic argument fails to cohere with that structure. In fact, since the empirical arguments for God's existence claim to involve explanations of various empirical phenomena that are either too big or too unique to be explained in other ways, it looks like theistic arguments will do well by the standards of holistic coherentism.

Now for a metaphysical naturalist, atheist, or agnostic, the conclusion of theistic arguments will not cohere with some rather fundamental aspects to their noetic structure. So for them, as long as they retain belief in propositions inconsistent with theism, theistic propositions will lack coherence with some portion of their noetic structure. So if under such circumstances they adopted theistic belief this belief would not be rational. But here we are supposing that the person simply adds theism to a noetic structure and retains propositions inconsistent with theism (e.g., that there are no immaterial substances, the universe exists by chance). But why suppose that this is what is required for a person to accept the conclusion of a theistic argument? A person could move to a noetic structure that includes theism and excludes the propositions that are inconsistent with theism. In fact, one would think that this is *would* happen if the person sees the entailments of theistic belief. But holistic coherentist rationality is an ideal that few of us attain anyhow. Most of us hold beliefs that are at least probabilistically inconsistent, but does this really bear on the rationality of our beliefs in any significant epistemic sense? I think not.

The problem with coherentist rationality lies elsewhere. The problem with defining rationality in terms of coherence, or making coherence a necessary condition for rationality, is that it is all too clear how internally coherent sets of beliefs can fail with respect to the truth goal of believing. Coherence is a very weak truth indicator, if a truth-indicator at all. For instance, take the situation of 31-year old Megan. She is married and works as a lawyer in a large law firm in New York. One day she trips on a banana peel outside her law office, falls, and bumps her head, in consequence of which she loses all memory of her past 15 years. Her noetic structure now consists of the beliefs that she had when age 16, which we will suppose are internally coherent. She now believes that it is 1983, she is a student at Oak Grove High School in San Jose, California, has red hair, has homework due in Mr. Garrison's History class, lives next door to her best friend Diane, Ronald Reagan is President of the United States, etc. These beliefs cohere with the rest of her noetic structure and were true in 1983. But given that her coherent noetic structure consists of beliefs she had when she was 16 years old, a wealth of true propositions will now be irrational for her to believe. Clinton is now president, Megan now lives in New York, is married, has no friend Diane who lives next door, does not go to school, is now a brunette, etc. But none of these propositions will cohere with her noetic structure. Hence, she will be irrational to accept any of them as they come to her by way of testimony, propositional evidence, or sensory perceptual experience. Coherence in this case falls very short as a guide to true beliefs. It simply does not hook up the right way with the epistemic point of view that allegedly characterizes epistemic rationality.

To put this otherwise, the problem with coherentist rationality is that it easily suffers from detachment from reality and thus moves away from the goal of acquiring true beliefs and avoiding false

ones.^{22[22]} Not only will many sets of obviously false beliefs be coherent, but what is likely to be true and given to us by way of testimony, experience, and argument will conflict with many such coherent sets of beliefs. For any set A of propositions {p, q, and r}, if set A is internally coherent, set B of propositions {not-p, not-q, and not-r} will also be consistent. Although this may not in itself be problematic, it becomes more clearly problematic when we realize that person S1 who believes A and person S2 who believes B will both be rational in holding their respective beliefs regardless of what comes to either person by way of experience, testimony, or argument. But suppose that set A does not cohere with the proposition there are red objects in the world, and set B does cohere with there being red objects in the world. If S1 and S2 are both appeared to redly, it will be rational for S2 to hold the belief that there is a red object in front of him but it will not be rational for S1 to believe this proposition. To put this otherwise, S1 and S2 will each be equally rational in their respective beliefs given the same experiential evidence they acquire. As long as we allow one's empirical evidence to include nonpropositional experience, many propositions that are likely to be true given our empirical evidence will fail to be rational by the standards of coherentist rationality.^{23[23]} It should be clear that coherentist rationality is not the sort of rationality that is adequately truth indicating. As readers of novels, science fiction, and market tabloids know all too well, internally coherent propositions offer tantalizing possibilities, but we go elsewhere for the truth.

Finally, even if some of our beliefs were justified by coherence conditions, they could not all be justified in this way. The justification of some *a priori* truths cannot depend on coherence relations for presumably the logical principles that articulate the idea of coherence are among these *a priori* truths.

Hence, although natural theology can for many people produce theistic beliefs that possess holistic coherentist rationality, I judge that rationality in this sense is not ultimately significant for the assessment of rational beliefs in relation to theistic arguments. Moreover, it is insufficient and probably unnecessary for the basic idea of epistemic rationality.

C. Evidential Rationality and Natural Theology

I think the relevant sense of rationality when it comes to natural theology is the non-coherentist, evidential sense of rationality. When we ask whether someone who holds a particular theistic belief on the

^{22[22]} This particular problem with coherentism is discussed by Paul Moser in *Knowledge and Evidence* (pp. 176-183), Robert Audi, *The Structure of Justification* (p. 91), and Alvin Plantinga, *Warrant: The Current Debate* (pp. 81-82, 110-111).

^{23[23]} Of course we have to grant that there is no necessary connection between doxastic coherence relations and conformity to a person's subjective nonpropositional sensory and perceptual states. But given this, coherence rationality leaves open the possibility of a significant discontinuity between one's beliefs and the totality of one's empirical evidence. So a person could be rational to believe what is either incompatible with or rendered improbable by the totality of one's empirical evidence, and one would not be rational to believe what is probable given one's total empirical evidence.

basis of considerations in natural theology is rational to hold such a belief I think we are most sensibly asking whether his evidence is good evidence for the target belief. We are not asking whether he arrived at his conclusions in an epistemically responsible way, though we presuppose I think that if he has good evidence it didn't come by way of his ignoring investigation, reflection, and research. I think we often assume that if a person has good evidence, he got it by way of adequately engaging into truth-relevant practices of belief-formation. Moreover, when we ask about the rationality of some particular theistic belief in natural theology we are not asking whether the person has arrived at a conclusion that coheres with the rest of his beliefs. The agnostic and atheist surely does not mean to ask this question when raising the question of the rationality of theistic beliefs arrived at by way of argument or inference. They want to know about the grounds of theistic belief, about whether the reasons for the conclusion are good indications of the truth of what is proposed as a conclusion from the evidence.

What is relevant at this juncture is how we understand "adequate evidence." I have already argued that restricting evidence to other propositions is implausible, so there is no reason why theistic arguments cannot employ premises that are rational but basic beliefs. But suppose we are working within the modern classical foundationalist framework of rational belief. In this case, theistic arguments will require premises that must meet fairly stringent epistemic criteria. One will have to develop a theistic argument the premises of which are restricted to self-evident propositions or beliefs about one's current states of consciousness, or non-basic beliefs of some sort that are ultimately derived from these narrowly defined properly basic beliefs. Secondly, philosophers in the rationalist tradition limit themselves to deductive entailment as the mode of inference from the premise to the target theistic belief. So "adequate evidence" is a very strong notion in this tradition. Theistic arguments will require premises that possess epistemic immunities or premises that are ultimately validly deduced from such properly basic beliefs, and one will have to proceed from such premises to a theistic conclusion by way of some deductively valid argument form.

Descartes theistic arguments represent just such an attempt and what is generally regarded as a failure for all that. Although Descartes' theistic arguments are fallacious, I argued that it is reasonable to suppose that some modal ontological arguments for God's existence are deductively sound. But even here, some of the premises are hardly self-evident premises, at least not to most people who are otherwise reasonable. For instance, one such argument depends on the belief that what is possible remains fixed from possible world to possible world. It depends also on the proposition that necessary existence is a great making property that can be a member of the greatest array of compossible great-making properties. Although these beliefs seem to me more reasonable than their negations, they do not possess immunity from doubt, revision, or error, even if they are logically necessary truths.

The kind of foundationalism that Descartes and many modern philosophers have advocated is, as Reid and many 20th century philosophers have argued, implausible in the extreme. It places not only natural theology but the natural and physical sciences in a logical straightjacket. Very little of what we claim to rationally believe is entailed or rendered probable by self-evident propositions and those that are about our immediate states of consciousness. It should come as no surprise that natural theology fares poorly here. So

does just about everything else. So we cannot plausibly restrict the evidence utilized in theistic arguments to the properly basic beliefs and deductions from properly basic beliefs of the Cartesian type classical foundationalist. Aquinas and the Thomistic arguments, of course, extend the properly basic beliefs to those truths that are evident to the senses. But this is still a narrow class of starting points and confined to an Aristotelian deductive model, or more precisely logical demonstration. The strengths and weaknesses of such an approach has been discussed in Part I. Here what should be noted is that evidential rationality need not be confined to the high standards of Aristotelian and Thomistic *scientia*.

To generalize a bit, as I argued in Part I, we should not confine our thinking about theistic arguments to the idea of proofs or logical demonstrations that proceed from premises that are either self-evident or acceptable to nearly everybody. Very little of what we believe, even inferentially, satisfies this sort of standard. Our rational beliefs about next door neighbors, astronomy, economics, history, and English literature depend on modes of inferential reasoning that do not constitute proofs in the strict sense. And what is true for these areas is true *a fortiori* in philosophy. It is a double standard to suppose that theistic beliefs must meet standards that are not imposed on most of our other beliefs.^{24[24]} We must, in the spirit of Reidian foundationalism, dislodge the kind of epistemic chauvinism that restricts the range of rational beliefs. We must accept a very broad range of evidence and include probabilistic inferences as a proper mode of rational inference. All such evidence is, of course, only *prima facie* rational. It can be overridden by sufficient reasons to the contrary. Hence, with this broadening and softening of evidential rationality, rational belief takes on a more fragile character. But this is a consequence that we must accept. Moreover, the idea of *prima facie* rationality permits one, even a foundationalist, to incorporate at least one relevant aspect of coherentism, a form of negative coherentism. What overrides the rationality of a particular belief will be evidence that counts sufficiently against the truth of the belief in question.

We see here a connection between natural theology as a source of rational beliefs about God and the logic of theistic arguments discussed in Part I. One of my central contentions in Part I was that Reformed thinkers typically attack theistic arguments on the grounds that these arguments are not cogent *proofs* for or *demonstrations* of God's existence. But clearly since rational beliefs arrived at by inference do not require a sound deductive argument, this criticism of theistic arguments does not entail that they could not be a source of rational beliefs about God. So we see a confluence here of evidential rationality and the sort of logic of theistic arguments defended in Part I. (I will develop the idea of evidential rationality more in relation to knowledge in sections III and IV below.)

^{24[24]} One may of course regard beliefs in all these areas, from biology to philosophy, as irrational, or at least non-rational because they fail to live up to very high standards of rationality one has adopted. In doing so, though one runs counter to fairly strong intuitions about the range of our rational beliefs. More importantly, since one's judgment about the failure of other beliefs to conform to a high standard of rationality likely itself fails to conform to such a standard, the judgment in question will also fail to be rational. Even if one cares little for common sense, one ought to avoid self-defeating claims.

C. Rationality and Truth

At the beginning of the chapter I noted that epistemic justification and rationality are *truth-relevant* concepts. They are terms of positive epistemic appraisal. All such terms are truth relevant, and - we might say - *truth indicative*. They have to do with the assessment or evaluation of belief with respect to the goal of acquiring true belief and avoiding false ones. Rational beliefs are beliefs for which we have (adequate) grounds, reasons, indications, or evidence for supposing that they are true. But it should be clear that the assortment of rational beliefs we've considered is logically consistent with any target rational belief in fact being false. In short, rationality does not entail truth; nor does truth entail rationality.

The registrar's office tells Professor Getlucky that 11 out of the 12 students in his philosophy of human nature class are philosophy majors. Later that day, he meets a student named Karen, and she informs him that she is enrolled in his course. On the basis of this evidence, he draws the conclusion that *Karen is a philosophy major*. In fact, she is the one student in the class who is not a philosophy major. Here a belief turns out to be false. But he seems to have good propositional evidence for supposing that his belief is true. His belief is rational in the sense that he has good evidence for it. He appears to be deontologically justified in holding it. We might suppose further that it coheres with the rest of his beliefs. Also, it is plausible to view his belief as arrived at inferentially on the basis of beliefs that are themselves rational in a way consistent with foundationalism. But the belief turns out to be false. So it is rational in several senses and frameworks, but it is false.

But now change this example. Suppose that the registrar's office had informed Getlucky that only 5 of the 12 students in his class are philosophy majors, but he still believes, perhaps due to an unhealthy optimism, that Lisa is one of the philosophy majors. If he has no other evidence, his belief does not appear to be based on adequate evidence. It is not evidentially rational, but this is entirely consistent with Lisa in fact being a philosophy major. Here a true belief is nonetheless irrational. Or take the case of suddenly suspicious Steve. After watching a film on Lifetime about a woman who has an adulterous affair, Steve finds himself suddenly suspicious that his wife is cheating on him. A bit carried away with his emotions, he carelessly collects evidence that ends up supporting his feeling. Had he been more careful in his evidence gathering as we can suppose he should have been, the evidence would have supported a very different conclusion. But on the basis of the evidence that he has carelessly gathered, Steve believes that his wife is cheating on him. In fact, she is. Here, though, he lacks deontological justification, but ends up holding a true belief. It is simply through epistemic serendipity that he acquires a true belief and in the face of having violated some reasonable epistemic duty to properly gather evidence on such an important matter. Interestingly enough, had he gathered the evidence more carefully as he should have, perhaps his evidence would have supported the conclusion that his wife was being faithful. In that case, we would have another instance of a deontologically rational false belief. So, again, truth and rationality may or may not go together.

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